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Care and Viral Suppression After HIV Diagnosis in U.S. Metropolitan Area, 2019

NATIONAL CENTER FOR HIV, VIRAL HEPATITIS, STD, AND TB PREVENTION

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BACKGROUND: HIV continues to be primarily concentrated in large metropolitan areas in the United States. Access to HIV care and treatment vary widely across these areas with distinct epidemiologic and structural characteristics. Identifying gaps in HIV care and treatment can inform programs aimed at reducing HIV transmission and improving health outcomes.

OBJECTIVES: To assess the percentages of persons with diagnosed HIV in 2019 who were linked to HIV care within 1 month of diagnosis and had viral suppression within 6 months of diagnosis in 115 large metropolitan statistical areas (MSAs).

METHODS:

- Data source: National HIV Surveillance System.
- Study population:
- 45 jurisdictions (AL, AK, AZ, AR, CA, CO, CT, DE, FL, GA, HI, IL, IN, IA, LA, ME, MD, MA, MI, MN, MS, MO, MT, NE, NV, NH, NM, NY, NC, ND, OH, OK, OR, RI, SC, SD, TN, TX, UT, VA, WA, WV, WI and WY) have reporting laws and complete laboratory reporting
- Persons aged 13 years and older
- Descriptive analyses:
- We analyzed NHSS data through December 2020 to determine the percentage distribution of two indicators of care during the year 2019 among persons with diagnosed HIV in the MSAs.
- The care outcomes were defined as follows: Linkage to HIV medical care was measured by documentation of ≥1 CD4 (count or percentage) or viral load (VL) test performed ≤1 month after diagnosis during 2019. Viral suppression within 6 months was defined as a VL result of <200 copies/ml within 6 months of an HIV diagnosis during 2019.
- We assessed the number of MSAs that met the 2017 baseline measures for linkage to HIV medical care (77.8%) and viral suppression (63.1%) as indicated in the Ending the HIV Epidemic (EHE) initiative.

Table 1. Linkage to HIV medical care within 1 month of diagnosis and viral suppression within 6 months of diagnosis during 2019 for MSA >500 HIV Diagnoses - 44 states and the District of Columbia

Metropolitan statistical area of residence	Total dx	≥1 CD4 or VL test		VL <200 copies/mL	
	No.	No.	%	No.	%
New York-Jersey City-White Plains, NY-NJ	1,803	1,566	86.9	1,401	77.7
Atlanta-Sandy Springs-Alpharetta, GA	1,654	1,355	81.9	1,132	68.4
Los Angeles-Long Beach-Glendale, CA	1,482	1,198	80.8	1,005	67.8
Houston-The Woodlands-Sugar Land, TX	1,435	1,068	74.4	845	58.9
Miami-Miami Beach-Kendall, FL	1,151	971	84.4	795	69.1
Chicago-Naperville-Evanston, IL	972	810	83.3	570	58.6
Dallas-Plano-Irving, TX	938	703	74.9	553	59.0
Washington-Arlington-Alexandria, DC-VA-MD-WV	775	656	84.6	554	71.5
Orlando-Kissimmee-Sanford, FL	652	514	78.8	462	70.9
Fort Lauderdale-Pompano Beach-Sunrise, FL	594	517	87.0	423	71.2
Phoenix-Mesa-Scottsdale, AZ	590	482	81.7	419	71.0
Riverside-San Bernardino-Ontario, CA	555	424	76.4	339	61.1
Tampa-St. Petersburg-Clearwater, FL	502	431	85.9	368	73.3

Table 2a. Linkage to HIV medical care within 1 month of diagnosis and viral suppression within 6 months of diagnosis during 2019 for MSA <500 HIV Diagnoses - 44 states and the District of Columbia

Metropolitan statistical area of residence	Total dx	≥1 CD4 or VL test		VL <200 copies/mL	
	No.	No.	%	No.	%
Las Vegas-Henderson-Paradise, NV	449	371	82.6	272	60.6
Charlotte-Concord-Gastonia, NC-SC	413	324	78.5	298	72.2
Baltimore-Columbia-Towson, MD	405	351	86.7	286	70.6
San Diego-Chula Vista-Carlsbad, CA	366	317	86.6	237	64.8
San Antonio-New Braunfels, TX	357	251	70.3	198	55.5
Denver-Aurora-Lakewood, CO	339	292	86.1	265	78.2
Jacksonville, FL	317	248	78.2	199	62.8
Fort Worth-Arlington, TX	317	225	71.0	172	54.3
Oakland-Berkeley-Livermore, CA	316	279	88.3	235	74.4
Memphis, TN-MS-AR	310	191	61.6	184	59.4
Detroit-Dearborn-Livonia, MI	285	243	85.3	216	75.8
Seattle-Bellevue-Kent, WA	282	256	90.8	233	82.6
New Orleans-Metairie, LA	282	238	84.4	215	76.2
St. Louis, MO-IL	282	216	76.6	186	66.0
Indianapolis-Carmel-Anderson, IN	264	146	55.3	128	48.5
San Francisco-San Mateo-Redwood City, CA	261	253	96.9	208	79.7
Anaheim-Santa Ana-Irvine, CA	246	199	80.9	176	71.5
Austin-Round Rock-Georgetown, TX	242	203	83.9	191	78.9
Nashville-Davidson-Murfreesboro-Franklin, TN	240	189	78.8	161	67.1
Columbus, OH	239	218	91.2	174	72.8
West Palm Beach-Boca Raton-Boynton Beach, FL	237	187	78.9	165	69.6
Minneapolis-St. Paul-Bloomington, MN-WI	227	210	92.5	165	72.7
Cincinnati, OH-KY-IN	218	181	83.0	128	58.7
Boston, MA	203	188	92.6	165	81.3
Baton Rouge, LA	201	175	87.1	156	77.6
Cleveland-Elyria, OH	190	169	88.9	133	70.0
Nassau County-Suffolk County, NY	182	155	85.2	149	81.9
Bakersfield, CA	179	141	78.8	104	58.1
Cambridge-Newton-Framingham, MA	172	152	88.4	147	85.5
Sacramento-Roseville-Folsom, CA	171	149	87.1	118	69.0
Portland-Vancouver-Hillsboro, OR-WA	169	149	88.2	135	79.9
Oklahoma City, OK	167	112	67.1	80	47.9
San Jose-Sunnyvale-Santa Clara, CA	162	139	85.8	131	80.9
Raleigh-Cary, NC	159	128	80.5	125	78.6
Warren-Troy-Farmington Hills, MI	153	128	83.7	116	75.8
Greensboro-High Point, NC	148	109	73.6	108	73.0
Columbia, SC	146	127	87.0	113	77.4
Frederick-Gaithersburg-Rockville, MD	144	124	86.1	100	69.4
Birmingham-Hoover, AL	143	111	77.6	105	73.4
Kansas City, MO-KS	142	104	73.2	105	73.9
Lakeland-Winter Haven, FL	125	112	89.6	98	78.4
Jackson, MS	125	94	75.2	83	66.4
Little Rock-North Little Rock-Conway, AR	123	99	80.5	78	63.4
Augusta-Richmond County, GA-SC	121	93	76.9	58	47.9
Milwaukee-Waukesha, WI	118	102	86.4	102	86.4
El Paso, TX	116	80	69.0	67	57.8
Fresno, CA	115	91	79.1	71	61.7
Dayton-Kettering, OH	112	93	83.0	78	69.6
Charleston-North Charleston, SC	106	93	87.7	82	77.4
Greenville-Anderson, SC	105	90	85.7	81	77.1

Table 2b. Linkage to HIV medical care within 1 month of diagnosis and viral suppression within 6 months of diagnosis during 2019 for MSA <500 HIV Diagnoses - 44 states and the District of Columbia

Metropolitan statistical area of residence	Total dx	≥1 CD4 or VL test		VL <200 copies/mL	
	No.	No.	%	No.	%
Richmond, VA	103	81	78.6	78	75.7
Providence-Warwick, RI-MA	101	91	90.1	83	82.2
Tucson, AZ	101	90	89.1	75	74.3
Winston-Salem, NC	99	82	82.8	79	79.8
Deltona-Daytona Beach-Ormond Beach, FL	98	74	75.5	57	58.2
Fayetteville, NC	93	62	66.7	44	47.3
Durham-Chapel Hill, NC	92	86	93.5	77	83.7
Knoxville, TN	91	66	72.5	57	62.6
Palm Bay-Melbourne-Titusville, FL	85	66	77.6	56	65.9
Hartford-East Hartford-Middletown, CT	83	67	80.7	61	73.5
Salt Lake City, UT	82	68	82.9	64	78.0
Cape Coral-Fort Myers, FL	78	77	98.7	65	83.3
Tulsa, OK	78	57	73.1	42	53.8
Stockton, CA	74	58	78.4	44	59.5
Albuquerque, NM	71	64	90.1	58	81.7
North Port-Sarasota-Bradenton, FL	70	54	77.1	50	71.4
Worcester, MA-CT	67	62	92.5	60	89.6
New Haven-Milford, CT	67	61	91.0	54	80.6
Buffalo-Cheektowaga, NY	64	57	89.1	51	79.7
Gary, IN	63	48	76.2	39	61.9
Chattanooga, TN-GA	59	47	79.7	44	74.6
Wilmington, DE-MD-NJ	59	46	78.0	39	66.1
Omaha-Council Bluffs, NE-IA	58	46	79.3	28	48.3
McAllen-Edinburg-Mission, TX	57	50	87.7	45	78.9
Rochester, NY	56	53	94.6	48	85.7
Tacoma-Lakewood, WA	56	47	83.9	40	71.4
Akron, OH	54	25	46.3	26	48.1
Grand Rapids-Wyoming, MI	53	48	90.6	47	88.7
Honolulu (Urban), HI	52	42	80.8	41	78.8
Poughkeepsie-Newburgh-Middletown, NY	50	47	94.0	42	84.0
Albany-Schenectady-Troy, NY	48	40	83.3	40	83.3
Toledo, OH	46	45	97.8	36	78.3
Lake County-Kenosha County, IL-WI	46	41	89.1	38	82.6
Pensacola-Ferry Pass-Brent, FL	45	36	80.0	34	75.6
Oxnard-Thousand Oaks-Ventura, CA	45	36	80.0	29	64.4
Colorado Springs, CO	44	30	68.2	25	56.8
Bridgeport-Stamford-Norwalk, CT	42	41	97.6	32	76.2
Modesto, CA	42	33	78.6	29	69.0
Springfield, MA	41	36	87.8	31	75.6
Elgin, IL	35	30	85.7	24	68.6
Syracuse, NY	30	24	80.0	20	66.7
Des Moines-West Des Moines, IA	29	27	93.1	20	69.0
Spokane-Spokane Valley, WA	26	26	100.0	22	84.6
Virginia Beach-Norfolk-Newport News, VA-NC	26	22	84.6	19	73.1
Lansing-East Lansing, MI	23	21	91.3	19	82.6
Provo-Orem, UT	23	19	82.6	17	73.9
Louisville/Jefferson County, KY-IN	22	20	90.9	18	81.8
Fayetteville-Springdale-Rogers, AR	22	13	59.1	10	45.5
Portland-South Portland, ME	18	17	94.4	16	88.9
Madison, WI	17	16	94.1	17	100.0
Youngstown-Warren-Boardman, OH-PA	16	11	68.8	13	81.3
Ogden-Clearfield, UT	16	8	50.0	12	75.0

Figure 1a. Linkage to HIV medical care within 1 month of HIV diagnosis in 2019, among persons aged ≥13 years, by Metropolitan Statistical Area— 44 states and the District of Columbia

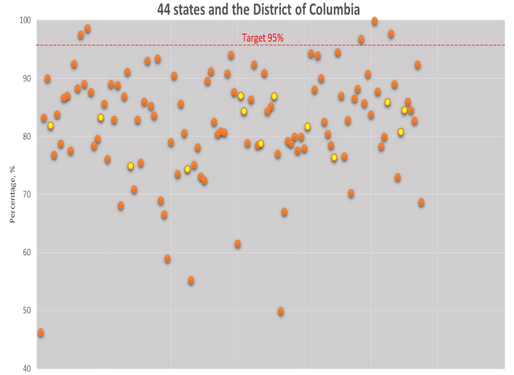
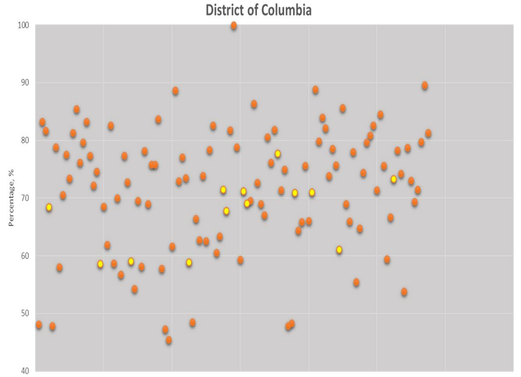


Figure 1b. Viral suppression within 6 months of HIV diagnosis in 2019, among persons aged ≥13 years, by Metropolitan Statistical Area— 44 states and the District of Columbia



*Note. Data are based on residence at diagnosis. Dots represent 115 MSAs within 44 states and the District of Columbia with complete reporting of CD4 and viral load results to the National HIV Surveillance System. Data were excluded for persons residing in states without complete laboratory reporting within the cross-jurisdictional MSA. Orange dots represent MSAs with >500 diagnoses. Please note the y-axis does not start at 0.

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***Disclaimer:**
The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

RESULTS:

Overall:
- 81.8% of persons with HIV diagnosed during 2019 were linked to care within 1 month of diagnosis
- 69.0% of persons with HIV diagnosed during 2019 had viral suppression within 6 months of diagnosis

By MSA:
- Linkage ranged from 46.3% (Akron, OH) to 100% (Spokane-Spokane Valley, WA) with a median of 83.3%; five of 115 jurisdictions had met or exceeded the 95% EHE target
- Viral suppression ranged from 45.5% (Fayetteville-Springdale-Rogers, AR) to 100% (Madison, WI) with a median of 73.0%; one jurisdiction (Madison, WI) exceeded 95% for viral suppression

Among 13 jurisdictions with >500 HIV diagnoses:
- 8 of 13 jurisdictions are in the South, 3 in the West, 1 in the Midwest and Northeast
- Linkage ranged from 74.4% (Houston-The Woodlands-Sugar Land, TX) to 87.0% (Fort Lauderdale-Pompano Beach-Sunrise FL)
- Viral suppression ranged from 58.6% (Chicago-Naperville-Evanston, IL) to 77.7% (New York-Jersey City-White Plans, NY-NJ)

Among 102 jurisdictions with <500 HIV diagnoses:
- 40 of 102 jurisdictions are in the South, 24 in the West, 23 in the Midwest, and 15 in the Northeast
- Linkage ranged from 46.3% (Akron, OH) to 100% (Spokane-Spokane Valley, WA)
- Viral suppression ranged from 45.5% (Fayetteville-Springdale-Rogers, AR) to 100% (Madison, WI)

CONCLUSIONS:
- Although progress in linkage to HIV care and viral suppression is evident, accelerated efforts are needed to meet the 95% goals set forth in the Ending the HIV Epidemic in the U.S. (EHE) initiative and National HIV/AIDS Strategy (2022-2025).